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Goals and Priorities for English Pronunciation Instruction

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Goals and Priorities for English Pronunciation Instruction

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Dedication

To all those learning a foreign language

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Abstract

Goals and Priorities for English Pronunciation Instruction

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English pronunciation instruction is not a common component of most language classrooms, with the large majority of ESL/EFL teachers lacking the knowledge and expertise to successfully reduce their students' segmental and suprasegmental pronunciation errors. Therefore, this report aims to provide English teachers with the necessary instructional goals, priorities, and suggestions to guide students in their pronunciation improvement, both during a course and beyond. The first chapter reviews the pronunciation education strategies of the past, and proceeds to offer contemporary approaches for English instructors and learners focusing on autonomous student strategy use. Secondly, the pedagogical priorities for pronunciation improvement in the short and long-term, for both segmental and suprasegmental features, are identified. The third chapter offers suggestions for teachers on how to use these goals and priorities within a course, as well as discussing classroom environments conducive for pronunciation improvement. This report makes a case for the importance of student empowerment through the utilization of autonomous learning strategies, allowing students to take control over their individual language acquisition process.

Table of Contents

List of Figures

I. INTRODUCTION

English instructors have to deal with foreign accented speech in their classrooms on a daily basis. Although most have become skillful at interpreting their students' deviant pronunciations, oftentimes small misunderstandings or complete breakdowns in communication still occur in the classroom. Unfortunately, many English teachers do not know how to help students improve their pronunciation in order to prevent, or at least reduce, these communication breakdowns. Breitkreutz, Derwing, and Rossiter's (2001) study of ESL professionals in Canada revealed that a meager 30 percent of teachers had received any type of pronunciation instruction training, with similar findings in Britain and Australia (Derwing & Munro, 2005). Moreover, Derwing and Munro reported that only a mere 8 percent of intermediate American ESL students had experienced some form of pronunciation teaching. When taking into account that pronunciation is intertwined with every aspect of both oral production and aural perception, these statistics are alarming.

So why has pronunciation instruction training been sidelined in teacher education? One component of the issue was the de-emphasis of pronunciation instruction during the rise of the Natural Approach (Krashen & Terrell, 1983) and Communicative Language Theory during the 1960 – 1980s, which emphasized authentic and meaningful input, and interactions (Jones, 1997), and thus pronunciation accuracy was devalued by both language programs and teachers (Breitkreutz et al., 2001; Derwing & Munro, 2005;

Jones, 1997). This paradigm change led to reprecussions in the field of second language acquisition research. During 1975 to 1988, the number of articles focusing on pronunciation fell to a measly 11.9 percent of the literature (H.D. Brown, 1991, as cited by Gilbert, 2010, p. 4). Between 1999 and 2008, pronuncation articles in the *Modern Language Journal* comprised only 0.81 percent, and other scholarly journals such as *Applied Linguistics* and *Language Learning* allocated slightly less than 3 percent of their publications to pronunciation research (Deng et al., 2009). It has also been suggested that the majority of these articles were not founded in empirical evidence (Derwing & Munro, 2005; Derwing, Munro, & Thomson, 2007; Jones, 1997), leaving their findings under suspicion. A compounding factor for the decline of pronunciation instruction was the low number of instructional materials that were produced during the same period, leaving classroom teachers with few resources to rely on for classroom use.

In spite of the glaring gaps in pronunciation research, teacher training, and materials, the communicative needs of ELLs have not changed, and they may in fact be growing as English has become an integral part of the globalization process. Many learners are now striving for English fluency to become successful "world citizens," however without the desire to integrate into the Anglophone culture that was characteristic of past language motivation studies (Dörnyei & Csizér, 2002; Humphreys & Spratt, 2008; Lamb, 2004). Instrumental motivation for English language learning, especially for occupational and education purposes, is on the rise for both adults (Cooke, 2006; Kouritzin, Piquemal, & Renaud, 2009) and adolescents (Kyriacou & Zhu, 2008),

and many cite accurate pronunciation as an important factor for future employment and/or study (Manfred, 2008).

The number of foreigners, including immigrant families, skilled professionals, or post-secondary education students and/or faculty, relocating to Enlish-speaking countries also displays no signs of slowing down. Now almost half of all U.S. doctorate-holding scientists and engineers are foreign born, and they are largely responsible for the 67 percent growth in the workforce of these fields during the ten year period from 1995 to 2006 (Kerr & Lincoln, 2008). In higher education in the U.S. there are nearly 600,000 international students per year, according to the Institute of International Education (2012), with 48 percent of them enrolled as graduate students who must routinely work as international teaching assistants (ITAs). Unfortunately it has been found by Plakans (1997) that approximately 30 percent of international students initially fail to meet the necessary requirements to become ITAs, with poor prounnciation cited as the "single most important failure in ITAs' overall ability" (Plakans, 1997, p. 99).

Consequently, it seems inexplicable that foreign language research, programs, and instructors who operate under the widely used communicative language teaching model would persist in the sidelining of pronunciation instruction. Clearly, the ever-growing number of English learners who will require successful oral communication in their personal, educational, or professional lives is not going to abate. Therefore, this report investigates the English pronunciation instruction goals and priorities that teachers should integrate into their classrooms grounded upon current and empirically based research findings. Chapter 2 starts by reviewing the goals and expectations of pronunciation

education strategies of the past, and proceeds to offer contemporary approaches for all English instructors, both native and nonnative speakers, by focusing on the *intelligibility principle* (Levis, 2005) and empowering learners through autonomous strategy use. Chapter 3 identifies the pedagogical priorities for the greatest possible pronunciation improvement in the short and long-term, for both segmental and suprasegmental features. Chapter 4 offers suggestions for teachers on how to use these goals and priorities within the classroom, as well as discussing classroom environments conducive for pronunciation improvement. The report concludes with a discussion of the importance of student empowerment through the utilization of autonomous learning strategies, as it allows students to take control over their individual language acquisition process.

II. GOALS AND EXPECTATIONS

NATIVENESS VS. INTELLIGIBILITY PRINCIPLES

Historically, pronunciation teaching has been approached through the *nativeness principle* (Levis, 2005). This principle states that it is both desirable and feasible for learners of all ages to achieve native-like levels of pronunciation in their L2 speech. The influence of this view is still seen today in many language classrooms with students who want to eliminate their foreign accent (Derwing, 2003) and instructors who believe that the idealized native-speaker pronunciation model is something to which all learners should subscribe. Research findings at the turn of the century, however, have called this view into question.

The research shows that the probability of an adult learner achieving native-like pronunciation in a foreign language is very low (Piske, MacKay, & Flege, 2001). The case for the Critical Period Hypothesis, under which there is a sharp decline in the ability to achieve an L2 native-like accent after a specific age, has markedly decreased in popularity as researchers have failed to find a cutoff point for retention of a foreign accent. Nevertheless, there does seem to be an overall gradual decline in language learners' ability to achieve an L2 native-like accent as the chronological age of the onset of language learning increases, leading some to instead support a "sensitive period" for L2 learning (Long, 1990). There have also been cases, however, of a select few individuals attaining L2 native-like pronunciation after early childhood (Ioup, Boustagi, El Tigi, & Moselle, 1994; Moyer, 2004; Nikolov, 2000), but it has been concluded that

these were rare cases of achievement that cannot be applied to the large majority of language learning students. Even early childhood exposure to the target language does not guarantee acquisition of a native-like accent, due to the influence of other factors such as the amount of L1 use, the amount and quality of L2 input, and the opportunities for authentic L2 output (Derwing, 2003; Flege, 1995; Flege, Frieda, & Nozawa, 1997; Thompson, 1991). Interestingly, it has been found that once an L2 phonetic category has been established in childhood, it can be retained even when L2 input markedly decreases (Harada, 2007).

Recent research has also revealed that in spite of many language learners' desire to have native-like speech features, a strong foreign accent does not necessarily impede understanding. Munro and Derwing (1999) assessed the English intelligibility and comprehensibility of ten adult native speakers of Mandarin, and compared the data with global foreign accent scores. They defined intelligibility as the ability of listeners to transcribe the actual words of an utterance, and comprehensibility as the overall ease in which a listener is able to understand the utterance (Derwing & Munro, 1997; Munro & Derwing, 1995). Their findings showed that native speakers of English were able to accurately transcribe nonnative utterances that they also believed to be moderately or even heavily accented, indicating that foreign accent does not necessarily cause L2 speech to be low in comprehensibility or intelligibility. There do seem to be, however, certain types of English pronunciation errors that negatively affect understanding disproportionately more than others; this will be investigated further in the Pedagogical Priorities chapter.

Based on research evidence, scholars have argued for a paradigm goal change. The fundamental goal of any pronunciation instruction should be to improve the intelligibility and comprehensibility of learners' speech, not to make them sound like native-speakers of English. Under the *intelligibility principle* (Levis, 2005), learners strive for being understood by both native and nonnative L2 users. Instruction should therefore focus on those features that are the most helpful for promoting successful communication while deemphasizing those that have little effect on intelligibility or comprehensibility. Jenkins (2000; 2002) looks at pronunciation instruction from an English as an international language (EIL) context in which learners are primarily interacting with other nonnative speakers. She argues that these EIL speakers should not have to conform to all the native-speaker pronunciation rules, but should instead focus on the five principal features that make up the Lingua Franca Core (LFC) to promote mutual intelligibility: (1) changes to the consonant inventory, (2) additional phonetic requirements, (3) consonant clusters, (4) vowel sounds, and (5) production and placement of stress (Jenkins, 2002). While Jenkins' examination of English pronunciation needs in an EIL context highlights certain features necessary for nonnative speakers' mutual intelligibility, the focus of this report is on ELLs who either already interact with L1 users, or who will do so in the future, and therefore must understand and adopt the phonetic system as used by English native speakers.

Further support for the adoption of the *intelligibility principle* in place of the *nativeness principle* (Levis, 2005) is that some nonnative speakers may want to retain their foreign accent, for reasons concerning learner orientation towards the target

language, target language culture, or level of affiliation with an L1 community. The relationship between learners' L2 accent and their perceived membership within their home ethnic group was shown to affect level of English pronunciation accuracy, and level of foreign accent could also prompt additional behavioral consequences for L2 learners within their L1 community (Gatbonton, Trofimovich, & Magid, 2005). When learners participate in two communities (L1 and L2), they are forced to negotiate their identity and will either choose to create a new identity in the L2 group, or to reaffirm their identity and membership in the L1 group. The consequences of this identity crisis for pronunciation instruction are that some students may aspire for lower levels of L2 pronunciation accuracy to signal their loyalty to the home ethnic group and avoid the behavioral consequences of "selling out" (Taylor, 1977, as cited in Gatbonton et al., 2005, p. 505), or some may strive for the highest possible L2 attainment while at the same time preserving ways of subtly manipulating their pronunciation "to clearly signal where their loyalties lie" (Gatbonton, Trofimovich, & Magid, 2005, p. 506). Jenkins (2000) also found in L2 interactions between nonnative speakers sharing the same L1 that there are more deviations in English pronunciation than if the interlocutors have differing L1 backgrounds, reinforcing the idea that L1 identity influences accent. This retention of a foreign accent may also have an advantage in communicative interactions with native-speakers, as it indicates the lack of native-like knowledge, and the cultural and linguistic nuances that accompany that knowledge, allowing the L2 user to communicate without being held to the same L1 standards. Moyer (2007) found that learners with closer-to-native accents had intentions to establish long-term or permanent residency in the U.S.,

viewed English as instrumental to future professional and personal success, were more likely to seek out opportunities for L2 practice, reported greater satisfaction with their language attainment, and had more positive attitudes towards the L2 language and community.

NONNATIVE ENGLISH PRONUNCIATION TEACHERS

For nonnative-English-speaking instructors, this expansion of the pronunciation-teaching model to focus on learner comprehensibility and intelligibility, instead of native-like levels of pronunciation, may help them to assert their legitimacy not only as English pronunciation teachers, but also as English language speakers (Golombek & Jordan, 2005). Unfortunately, many in the TESOL profession still view the native-speaker model as the pinnacle in teacher qualification and legitimacy, as exemplified through classified ads for English instructors requiring or preferring native-English speakers (Lin, Wang, Akamatsu, & Riazi, 2002); and this is in spite of the fact that nonnative English-speaking teachers constitute up to 80 percent of all English teachers worldwide (Canagarajah, 1999). Nonnative English instructors may themselves subscribe to the native-speaker model, leading to feelings of insufficiency, anxiety, and self-consciousness in their identity as an English speaker and teacher (Golombek & Jordan, 2005). It should however be noted that simply rejecting the native-speaker superiority myth may not provide the necessary legitimacy that nonnative teachers need, and that an exploration of identity and/or credibility through other channels such as personal experience, pedagogical knowledge, knowledge of students' L1, language expertise, or access to

expert opinions that dismantle the native speaker myth might be necessary (Golombek & Jordan, 2005).

REALISTIC PRONUNCIATION GOALS

Despite the unlikelihood of reaching native-speaker proficiency, some students may persist in their goal of complete accent elimination. Harmer (2001) posits that learners should not be denied this goal of achieving native-speaker level pronunciation. Researchers like Derwing and Munro (2005) and I, on the other hand, believe that one of the pivotal roles of the teacher is to guide L2 students in setting realistic, and therefore achievable, goals for their language learning that are based upon current research findings. With this outlook in mind, teachers should help students realign their pronunciation goals to increased comprehensibility and intelligibility, with the understanding that a native-speaker accent is in some cases undesirable, and unfeasible for most who begin language learning after early childhood. As Abercrombie suggests, "a comfortably intelligible pronunciation" (1949, as cited in Field, 2005, p. 400) is all that is needed for communicative success.

THE COVERT REHEARSAL MODEL

The instructional goals of pronunciation teaching should reach beyond the scope of a single course and empower students to thrive and grow as language users in any context through increased communicative competency (Brown H. D., 2001). Empowerment is achieved through the promotion of autonomous learning, where

students take responsibility away from the teacher for specific aspects of their language learning process (Cotterall, 2000). Students, however, need to be trained by teachers for integrating autonomy into their learning processes by (1) reflecting the learners' goals in course language, tasks, and strategies, (2) explicitly linking course tasks to a simplified model of the language learning process, (3) replicating real-world communicative tasks in the classroom, (4) incorporating discussion and practicing strategies to facilitate task performance, and (5) reflecting on learning (Cotterall, 2000). Morley (1991) takes this goal of learner autonomy and specifies some additional goals concerning pronunciation instruction:

1. An emphasis on communicative-based approaches to pronunciation
2. A focus on suprasegmental features, like stress, rhythm, and intonation, in addition to segmentals
3. An expansion of the pronunciation domain to include features such as articulatory settings and body language
4. A redefinition of the pronunciation instructor as a facilitator, coach, guide, and organizer of instructional activities by training students in learner autonomy
5. A focus on real-world communication tasks derived from learners' needs and goals
6. An expansion of perception or listening based pronunciation practice to include a variety of L2 accents
7. A focus on the importance of sound/spelling relationships
8. A focus on the unique situation of individual English language learners

Using these new goals, Morley developed the Multidimensional Model as a framework for classroom pronunciation teaching, which contains the following features: (a) a dual-focus program focused on communicative competency; (b) a focus on specific learner pronunciation goals that incorporates their unique competencies and strategies; (c) integration of instructional objectives with learner involvement; (d) teacher guidelines for curriculum development; (e) an altered view of learner roles and responsibilities; and (f) an altered view of instructor roles and responsibilities.

Unfortunately, it has been found by Sardegna (2009) that Morley's Multidimensional Model lacks the necessary specificity to implement it or empirically test it in the classroom context because of its broad definitions of autonomous learning. Dickerson's Process of Covert Rehearsal (1989; 1994; 2000), which is based upon the Multidimensional Model, fortuitously takes the framework further by providing the necessary autonomous learning techniques and strategies for classroom implementation. Users of the Process of Covert Rehearsal Model find that learner autonomy is engendered through the use of predictive rules for both the segmental and suprasegmental features of English pronunciation, in addition to perception and production exercises, with the ultimate goal of teaching learners how to teach themselves through self-monitoring and self-correction.

The development of the Covert Rehearsal Model was grounded in second language strategy training research, under which the general goals of instruction are (a) to teach students how, when, and why strategies can be used to assist in language learning and use; (b) to foster learner autonomy by allowing students to personalize their strategy

use, and to encourage self-monitoring; and (c) to allow the learners to take control of their own language learning process (Cohen, 1998). The Covert Rehearsal Model has its own additional goals of (a) improvement of learners' natural English speech; (b) improvement in students' natural speech perception; and (c) improvement of student's ability to accurately predict the pronunciation of English words and phrases (Dickerson, 1989; 1994; 2000; Hahn & Dickerson, 1999).

In order to teach pronunciation following the Covert Rehearsal Model (Dickerson, 1989; 1994; 2000; Hahn & Dickerson, 1999), both instructors and students must adjust their expectations for a pronunciation class, or the pronunciation component of a more broadly focused English language course (Sardegna, 2009). Teacher expectations should align to the following principles:

1. Believe that learners are their own primary instructors, and need to assume personal responsibility for being self-teachers
2. Accept their role as guides and teacher trainers, and therefore adopt pedagogical techniques that facilitate learners' self-teaching[1]
3. Realize that students' self-teaching will occur outside of the classroom in private covert rehearsal
4. Understand that learner progress usually occurs at a slow rate under the self-teaching model
5. Implement assessment techniques that evaluate the effectiveness of learners' self-teaching capabilities

[1] See Morley (1991) for an overview of Teacher-as-Coach responsibilities

6. Understand that some "backsliding" is normal after intensive pronunciation instruction (Beebe, 1988; Sardegna, 2011; 2012)

Student expectations should align to the following principles:

1. Believe that learners are their own primary instructors, and therefore need to assume personal responsibility for being self-teachers
2. Understand the process of pronunciation improvement, and what it requires for success
3. Learn and demonstrate understanding of the necessary resources for pronunciation improvement (self-monitoring, self-evaluating, and self-correcting)
4. Understand that learner progress usually occurs at a slow rate under the self-teaching model
5. Use the recommendations, techniques, and opportunities provided by teachers to rework their own speech.
6. Understand that some "backsliding" is normal after intensive pronunciation instruction (Beebe, 1988; Sardegna, 2011; 2012).

Through the processes of realistic goal setting based on the *intelligibly principle* (Levis, 2005) and strategy training in the classroom, teachers can successfully empower students to become their own pronunciation "self-teachers" both during and after formalized instruction.

III. PEDAGOGICAL PRIORITIES

As mentioned previously, there appear to be certain English pronunciation errors that negatively affect speech understanding disproportionately more than others. Historically, the focus of pronunciation training was on the segmental features of language, namely the accurate production of discrete English consonant and vowel sounds through oral exercises such as "listen and repeat" or minimal-pair drills (Jones, 1997). With the advent of the Communicative Language Teaching methodology, however, pronunciation training shifted its focus to suprasegmental features in a discourse context, such as rhythm, stress, linking, and intonation, forsaking the segmental features that had previously been so integral to successful language instruction.

The current pronunciation teaching models, however, are moving towards a more balanced view of the importance of segmentals versus suprasegmentals, with the understanding that speech intelligibility and comprehensibility are linked to both segmental and suprasegmental language features (Celce-Murcia et al., 2010). Therefore, the selection of pedagogical priorities for a pronunciation course should focus on the features, both segmental and suprasegmental, which will negatively affect speech understanding the most for a group of learners.

DIAGNOSTIC ASSESSMENT

When dealing with a classroom of mixed language background students, initial pronunciation diagnostic testing is of paramount importance for teachers to be able to

successfully tailor their curriculum to the challenges and needs of their specific set of learners. It also gives instructors an avenue to measure student progress throughout a pronunciation course with initial, mid, and final diagnostic assessments. The most effective way to decide on appropriate and individualized goals is by obtaining two speech samples from each student:

1. A read-aloud performance using a standardized diagnostic passage (focus on form)
2. A free-speech performance (focus on meaning)

These two complementary samples allow the instructor to analyze the specific needs of each student, in addition to the pronunciation needs of the class as a whole.

The diagnostic passage serves to assess students' command of the English segmental and suprasegmental pronunciation features that might not necessarily occur in students' free-speech samples. While it is always a good idea to have your diagnostic passage mimic the real-life contexts in which learners will be communicating, it is more important to elicit an overview of the pronunciation features that could be causing decreased intelligibility and/or comprehensibility. It is also important to keep in mind the proficiency level of students in passage selection, as passage length and/or vocabulary level may prove a challenge for lower level learners. Some current pronunciation texts that include general diagnostic passages and feedback guides, which instructors can use "out of the box" or adapt to meet the needs of their specific teaching context, are Gilbert's *Clear Speech* (2005) and Celce Murcia et al.'s *Teaching Pronunciation* (2010).

Through the use of technology, pronunciation diagnostic assessments can take place either inside or outside of the classroom. Teachers can use computer labs, if accessible, to record all of their students at once, or have the students record themselves as a homework assignment which is then electronically submitted to the instructor. For a small number of students, it is also feasible for the instructor to record all the students individually within the allotted class time. In every situation, however, students should be allowed time to read and practice before recording their read-aloud performance in order to decrease the occurrences of atypical reading features, such as "unnatural flow, awkward pauses, stumbling over words, restarts, and the like" (Celce-Murcia et al., 2010, p. 313), which can occur with both native and nonnative speakers when confronted with an unfamiliar passage. The free-speech portion of the diagnostic assessment serves to support the read-aloud performance by confirming or denying the necessity of intervention for a particular pronunciation feature. Instructors can provide prompts such as (a) Where are you from?, (b) What do you study?, (c) What do you do for fun?, (d) What did you do during break?, (e) What do you plan to do after graduation?, (f) What problems do you have with oral English?, or (g) What do you hope to improve this semester? (Smith, 2012), in order to obtain an authentic speech sample. These two audio recordings facilitate appropriate curricular decisions regarding pronunciation improvement targets by allowing instructors to compare individual learner needs with the hierarchy of functional loads for segmental and suprasegmental features.

FUNCTIONAL LOAD FOR ENGLISH SEGMENTAL FEATURES

The functional load for English segmental features was developed to help instructors, and learners, choose the most important sound features to focus on for oral intelligibility and comprehensibility improvement. According to Catford (1987), functional load is determined by the number of times that a particular phoneme, or phonemic contrast, occurs in one thousand words of text. This text analysis produced a list of the relative functional load for initial and final consonants, as well as vowel phonemes. Unfortunately, this hierarchy did not take into account the characteristically difficult and/or easy phonemes for ELL students (Brown A. , 1988). Therefore Brown proposes that functional load needs to assess other factors beyond frequency such as probability of occurrence, acoustic similarity, number of minimal pairs belonging to the same part of speech, and structural distribution of phonemes, etc. that more accurately depict the phonemic hierarchy of needs for English language learners (see Figure 1). In classrooms with a single L1 background, instructors can focus on the unique challenges that the English sound system poses for a particular language by reviewing possible negative transfer patterns to English, such as Korean learners typically encountering difficulty with the /l/ vs. /r/ phonemes or Arabic students struggling with the /p/ vs. /b/ contrast (Swan & Smith, 2001).

Vowels		Consonants	
/ɛ vs. æ/	bet vs. bat	/p vs. b/	pack vs. back
/æ vs. ʌ/	bat vs. but	/p vs. f/	pan vs. fan
/æ vs. a/	pat vs. pot	/m vs. n/	mutt vs. nut
/ʌ vs. a/	hut vs. hot	/n vs. l/	not vs. lot
/ɛ vs. ɪ/	bed vs. bid	/l vs. r/	led vs. red
/ɛ vs. ey/	met vs. mate	/t vs. d/	time vs. dime
/a vs. ay/	hot vs. height	/k vs. g/	come vs. gum
/iy vs. ɪ/	leave vs. live	/w vs. v/	wary vs. very
		/s vs. z/	sue vs. zoo
		/b vs. v/	berry vs. very

Figure 1. Functional load for English phonemes.[2]

PRIORITY OF SUPRASEGMENTAL FEATURES

The analysis of the functional load for suprasegmental features is a more recent focus for pronunciation research, and while studies have found that prosodic features have a greater affect on speech comprehensibility than previously believed, there is no consensus on their relative hierarchy. When comparing the relative contributions made to oral intelligibility by prosody, pronunciation of segmentals, and syllable structure for 60 male nonnative English speakers with sixteen different language backgrounds, it was found that accuracy for suprasegmental features was most positively associated with the overall pronunciation score (Anderson-Hsieh, Johnson, & Koehler, 1992), suggesting that

[2] Adapted from Celce-Murcia et al. (2010). *Pronunciation teaching: A course book and reference guide (2nd ed.)*. Cambridge: Cambridge University Press.

"prosodic deviance may affect comprehension more adversely than does segmental deviance" (Anderson-Hsieh & Koehler, 1988, p. 562).

The incorrect use of lexical or word stress in English also negatively affected native speakers' listening comprehension of accented speech. When British native speakers listened to the accented English speech of people from Algeria, Nigeria, and India there was a breakdown in comprehensibility with inaccurate word stress placement, for example listeners transcribed *normálly* (incorrectly stressed on the right syllable) as *no móney*. This study suggests that English listeners are more focused on stress cues than the context, or segments, for speech recognition, and that word stress instruction should be paramount in the English language classroom (Benrabah, 1997). Field (2005) found that an incorrect stress shift to the right had a 19% greater negative impact on intelligibility than an incorrect shift to the left. This could be attributed to the fact that 85.6% of English content words in running speech are monosyllabic or stressed on the first syllable, therefore a stress shift to the right syllable would alter the listeners' perception of the word's boundary while "an incorrect stress on the left syllable would have a lesser effect because it still is signaling the start of a new word" (Cutler & Carter, 1987, as cited in Field, 2005, p. 73). Tajima, Port, and Dalby (1997, as cited in Ingels, 2011) revealed the negative impact that non-native prosody can have on word recognition by temporally correcting the timing of Chinese accented speech samples to match that of an English native speaker, and conversely changed native English speech samples to mirror Chinese timing. The results show that the word level intelligibility of the Chinese

accented speech improved 19% with temporal correction, and decreased 11% with the temporal distortion of the native English samples.

English primary stress is produced through pitch change, vowel lengthening, and increased intensity (Bolinger, 1986) on one word within a phrase; it is used to indicate new or contrasting information (See Figure 2). Hahn (2004; 1999) manipulated the primary stress assignment in Korean-accented mini-lectures to be used correctly, incorrectly, or to be absent, and found that native-speaker undergraduate college students had the highest listening comprehension and speaker evaluation for the lectures with the accurate use of primary stress, indicating that correct primary stress placement positively affects both comprehension and native-speaker perceptions of accented speech. In a similar study, poor intelligibility scores were found with ITAs who used too many primary phrase stresses, too many pauses, and incorrectly used falling intonation, with undergraduate college students rating the nonnative speech as "disorganized and unfocused" (Tyler, Jeffries, & Davies, as cited in Hahn, 1999, p. 71).

A: Did you finish editing Tom's **PAPER**?
B: I tried to finish it last **NIGHT**, but it was too **LONG**.
A: His papers are **ALWAYS** long. You should work on it today during **LUNCH** or **OFFICE** hours.

Figure 2. Sample dialog with primary stress.

(For more information on primary stress, see Hahn & Dickerson, 1999)

English rhythm, consisting of the lengthening of stressed syllables and the shortening of reduced syllables, has been cited as the most commonly experienced

challenge for nonnative speakers of English, regardless of their native language background (Chela-Flores, 1994). Therefore she suggests that teachers should first and foremost focus on rhythm instruction, initially helping students to reduce their syllabic rhythm through non-technical exercises (i.e. use of rubber bands to kinesthetically simulate vowel lengthening, use of nonsense syllables, etc.), and then in more natural language conditions (Chela-Flores, 1994; 2001). Ur (1987, as cited in Celce-Murcia et al., 2010) notes that many ESL/EFL listening materials do not exhibit natural English rhythm, due to their overarticulated speech characteristics intended to make aural comprehesion easier for students. This teaching approach creates complications, however, when students are confronted with natural English discourse where they become "frustrated by issues such as the rapidity of native-speaker speech, and by their inability to decipher word boundaries and/or recognize words or phrases" (1987, as cited in Celce-Murcia et al., 2010, p. 175). Therefore, exposure to authentic English conversations and instruction in the elements of English rhythm are integral for students' communicative success. Linking is also a fundamental part of successful English rhythm, with native speakers smoothly connecting words within individual message units and syllables within words to maintain the even timing characteristic of the English "melody" (Hahn & Dickerson, 1999).

English intonation functions at both the word and the phrase level. At the word level, intonation demonstrates the significance or relationship of the lexical item to the shared knowledge between participants of the discourse; for example, a high pitch accent is used for new information, a low pitch or de-accent is used for old information, and

contrasting pitch is used for opposing discourse items. At the phrase level, intonation indicates the relationship or significance of a phrase in relation to the surrounding phrases; for example, a falling pitch indicates phrase finality while rising pitch signals a question or phrase nonfinality (See Figure 3). Wennerstrom (1998) found in a study with 18 Mandarin speaking ITAs that the accurate use of English intonation had a significantly positive affect on comprehensibility scores. In a similar study it was uncovered that Mandarin speaking ITAs tended to use less rising intonations than native speakers while overusing falling and level intonations, creating a monotonous tone to their speech that generated a feeling of distance between the listeners and the speaker (Pickering, 2001).

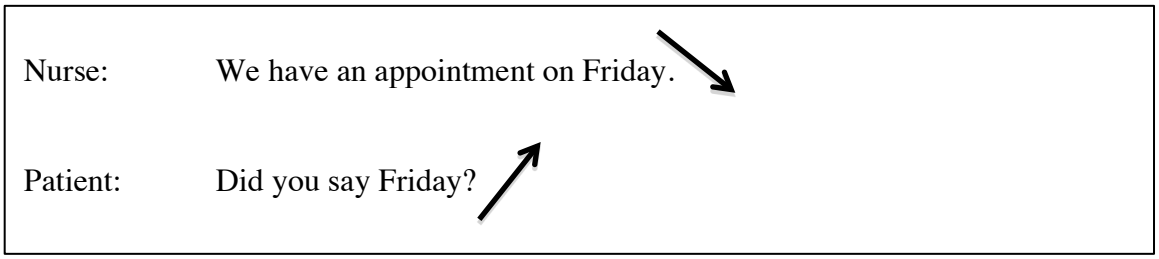

Figure 3. Sample English intonation pattern.

It has become apparent through the research that the prosodic features, including word stress, phrase stress, rhythm, linking, and intonation, are all of great importance for successful oral communication, but few studies have been conducted on the efficacy of pronunciation instruction. The initial findings reveal that learners do benefit, in both the short- and the long-term, from explicit pronunciation instruction. Derwing, Munro, and Wiebe (1998) revealed that English language learners who received suprasegmental instruction had greater gains in learner comprehensibility in communicative speech performance than did segmental instruction, whereas students who did not receive

explicit pronunciation instruction were found to have no or very modest comprehensibility gains even over a two-year period in Canada (Derwing, Munro, & Thomson, 2007). Sardegna (2011) studied the longitudinal effects of students' linking abilities after receiving pronunciation instruction under the Covert Rehearsal Model (Dickerson, 1989; 1994; 2000; Hahn & Dickerson, 1999) and found that participants showed both short- and long-term improvement in linking during read aloud performances, and that this improvement was not affected by individual learner differences. Similar results were obtained when focusing on long-term English stress improvement under CRM (Sardegna, 2009). In both studies, the only predictor of the amount of pronunciation improvement was the learner's proficiency upon beginning instruction, with students at a lower proficiency level making larger gains than those at an initial higher proficiency level.

This finding is corroborated by Ingels' (2011) study into learner strategy use in L2 pronunciation instruction using a modified Covert Rehearsal Model in an ITA pronunciation course. She found that all fifteen participants made meaningful improvements in at least some aspects of their suprasegmental comprehensibility and intelligibility, with message units, linking, and function words exhibiting the greatest gains, and students at a lower proficiency achieving a greater percentage of improvement. The results also suggest that different strategies were more effective for different levels of learners, with listening – transcription – annotation – practice aiding higher-level students, while lower proficiency students benefited most from listening – transcription – practice strategies.

During a 15-week ITA course at an American university aimed at improving suprasegmentals through prioritization of individual needs, student empowerment through teacher scaffolding, and opportunities for student monitoring and reflection, reduction improved 5.7 percent, primary phrase stress improved 14.5 percent, intonation improved 11.44 percent, and linking improved 12.9 percent (Sardegna & McGregor, in press). Smith (2012) found that ELL students who received individualized tutoring following the Covert Rehearsal Model for one hour a week over an eight week period had average gains of 13.23 percent in reduction, 10 percent in contractions, 7.53 percent in intonation, and 8.92 percent in primary stress. What is important to note about this study is that MA TESOL students, both native and nonnative English speakers, tutored these learners while concurrently enrolled in a required ESL pronunciation course, where they were learning the concepts and methods of pronunciation instruction. These findings suggest that the efficacy of pronunciation instruction is not contingent upon the hours of instruction, or the necessity of an "expert" or native speaker pronunciation teacher, but instead upon the methods and materials used for the instruction (Hahn and Dickerson's *Speechcraft: Discourse pronunciation for advanced learners*, 1999, and Celce-Murcia et al.'s *Teaching pronunciation: A course book and reference guide, 2nd ed.*, 2010).

Consequently, many popular pronunciation textbooks (Celce-Murcia et al., 2010; Gilbert, 2005; Hahn & Dickerson, 1999) highlight the importance of prosodic instruction for pronunciation improvement. Specifically for learner advances in short pronunciation courses, studies have shown that a focus on suprasegmental features increased intelligibility and comprehensibility in students more so than focusing on segmental

features, as improvement in prosodic features can develop at a faster rate (Derwing & Rossiter, The effects of pronunciation instruction on the accuracy, fluency and complexity of L2 accented speech, 2003). McNerney and Mendelsohn (1992) also found that in addition to greater intelligibility and comprehensibility gains, students also experienced less course frustration because greater change could be achieved in a shorter amount of time by concentrating on prosodic features. Therefore, short-term pronunciation instruction in particular should focus first and foremost on English suprasegmental features since it appears that greater change can be accomplished in less instruction time; Gilbert's *Clear Speech* (2005) especially follows this approach.

IV. SUGGESTIONS FOR THE CLASSROOM

COMMUNICATIVE LANGUAGE TEACHING FRAMEWORKS FOR PRONUNCIATION

Since the 1980s, Communicative Language Teaching (CLT), with its focus on the larger framework of communication and the active use of authentic L2 language in the classroom, has been the reigning methodology in language courses. The five core tenants of CLT are (Celce-Murcia, 2001; Celce-Murcia et al., 2010; Richards & Rogers, 2001):

1. Language is best learned within the larger structure of communication, with the ultimate goal of teaching learners how to use the L2 effectively in a variety of communicative situations.
2. Classroom tasks and materials should mirror students' goals and interests, and foster their desire to communicate in the L2.
3. The most effective way to acquire language is through active participation. Students are encouraged to ask questions and work independently in groups where there is negotiation of meaning.
4. The syllabus should focus on preparing learners to express themselves in a variety of communicative situations.
5. Errors are a normal part of the language learning process. Therefore, students are encouraged to take L2 linguistic risks and formulate working hypotheses about the language system; these hypotheses should eventually be confirmed or denied through L2 exposure or instructor feedback (Swain, 1985).

This paradigm shift away from the audiolingual and direct method approaches of the past, which followed behaviorist teaching exercises (i.e. "listen and repeat" oral drilling using decontextualized vocabulary), and left CLT practitioners wondering how to integrate pronunciation instruction into a communicative-focused classroom. The resulting course materials focused on the more overarching suprasegmental language features, at the expense of segmental features, allowing pronunciation instruction to be brought back into the now communicative classroom (Jones, 1997). Unfortunately, the large majority of these materials simply repackaged the behaviorist strategies of the past into "more elaborate forms of drilling, …which learners are able to engage in without attending to meaning or communication at all" (Jones, 1997, p. 109), and therefore failed to meet the communicative needs of both language teachers and students. The current situation has remained quite similar, with the absence of an agreed upon set of strategies for teaching pronunciation communicatively.

Celce-Murcia et al. (2010), however, have proposed a communicative framework for teaching English pronunciation that follows the previously mentioned principles of the CLT model. The framework is divided into five phases that are meant to be approached over the course of a few lessons for each new pronunciation feature:

1. Description & Analysis – explanation of how a new pronunciation feature is produced and when it is used
2. Listening Discrimination – focused listening practice with the goal of accurate learner identification of the feature

3. Controlled Practice – focus on monitoring the new pronunciation feature in oral production
4. Guided Practice – structured communication exercises with some monitoring
5. Communicative Practice – fluency-building activities through creative and communicative language exchanges

The description and analysis phase of Celce-Murcia et al.'s pronunciation instruction framework calls for teachers to draw learners' attention to discrete language features so that they can later accurately integrate them into their own speech patterns. The belief that successful language acquisition begins by learners consciously "noticing" or "attending" to language features (Ellis, 1990; Schmidt, 1990; 2001) has reached widespread popularity, and is an integral step in the communicative framework for pronunciation instruction. Pronunciation instruction, unlike grammar or vocabulary, however, poses some unique sensory and physiological challenges to learners, as it requires motor control in addition to cognitive mastery. Therefore, teachers need to provide tactile and kinesthetic learning approaches in addition to the traditional rule-based explanations (Celce-Murcia et al., 2010).

Listening discrimination practice has been shown to not only have a positive effect on learners' perception abilities, but also in their production capabilities of the target feature (Rochet, 1995; Wang & Munro, 2004). Bradlow et al. (1997) found that Japanese learners of English who were perceptually trained in the non-native /r/ vs. /l/ phonemic contrast had higher levels of pronunciation accuracy for these targets than the

control group who received no phonemic instruction; neither group had received production instruction for the targets. This finding led the researchers to believe that there is a common and unified mental representation of language that affects both speech perception and production, suggesting that "the essential role of perception has been underappreciated" (Escudero, 2007, as cited in Celce-Murcia et al., 2010, p. 46) in language instruction.

Controlled practice under Celce-Murcia et al.'s communicative pronunciation instruction framework provides learners the opportunity to highly monitor their production of the target feature, with the goal of improving the accuracy and form of student output. Exercises under this phase should focus on allowing learners to use controlled processing of the target feature, without having to give attention to negotiation of meaning. This initial practice with controlled practice is supported by the Information Processing Theory, which states that all types of learning begin in the short-term memory with controlled processing, and then with time and practice this processing moves to the long-term memory and becomes automatic (McLaughlin, 1987; McLaughlin & Heredia, 1996), allowing the learner to unconsciously perform the target task and focus their short-term memory on other processing needs. Canale and Swain (1980) found that when learners had the time and practice, they could automatize a new pronunciation feature into their spoken language. Appropriate classroom exercises for controlled practice would focus on repetition and oral reading, such as minimal-pair word drills, short dialogues, tongue twisters, and short poems or rhymes. Outside of the classroom, student

practice should follow Dickerson's Covert Rehearsal Model (1989; 1994; 2000; Hahn & Dickerson, 1999), which is discussed in further detail below.

The guided practice phase of Celce-Murcia et al.'s pronunciation instruction framework takes student training a step further, with still a large emphasis on target form accuracy and fluency, but with the added component of attention to meaning. These "focused tasks" force learners to improve their accuracy while beginning the process of automatizing the target feature (McLaughlin, 1987; Doughty & Williams, 1998). The bulk of research on guided practice has concentrated on L2 grammar acquisition, such as Nobuyoshi and Ellis's (1996) findings that form-focused task use in the instruction of past-tense verb forms led to both immediate and long-term form accuracy improvement. New findings are showing, however, that learners' explicit knowledge of the English sound system (metaphonological awareness) is highly correlated with both speech comprehensibility and phonological short-term memory, leading researchers to speculate that the use of form-focused activities in pronunciation training could have the same positive learning effects that have been found to occur in grammar teaching and learning (Venkatagiri & Levis, 2007). Appropriate classroom activities, such as information-gap exercises, strip stories, and cued dialogues, are semi-controlled and structured to focus on the target feature, like the controlled practice phase, but with the added challenge of learners adding specific information.

When learners have constructed a strong foundation for the target features using the four previous steps, authentic communicative practice can begin. Under the CLT methodology this is where the real language acquisition transpires, as learners

participating in meaning-focused activities develop control over the target feature in "real operating conditions" (Ellis, 1990, as cited in Celce-Murcia et al., 2010, p. 48) where genuine exchanges of information occur. Classroom activities should be open-ended and require students to negotiate meaning in some way, while simultaneously highlighting the target feature; examples include interviews, storytelling, role-plays, debates, and problem solving activities. This phase of the framework allows the teacher the most freedom and creativity in activity development, and it can easily be incorporated with other coursework or resources. For example, an ESL class reading *The Wizard of Oz* could interview Dorothy about her incredible journey, allowing students to interact with the course text while at the same time focusing on the target feature of question intonation.

While Celce-Murcia et al.'s framework gives teachers guidelines for successfully integrating pronunciation instruction into the classroom, it regrettably does not give strategies for learner improvement beyond the scope of a pronunciation or general language course. The importance of empowering students to continue their language learning without the guidance of a course or instructor is not to be undervalued, as "no students, anywhere, will have their teachers accompany them throughout life" (Littlewood, 1999, as cited by Cotterall, 2000, p. 109). Therefore, instructors need to not only offer opportunities for production and perception practice within the context of the classroom, but also train their students in pronunciation prediction strategies that they can use for the rest of their lives. Dickerson's Model of Covert Rehearsal (1989; 1994; 2000; Hahn & Dickerson, 1999) has shown to be an up-and-coming methodology for

engendering both learner autonomy, through prediction strategies, and pronunciation improvement.

THE COVERT REHEARSAL MODEL

The Covert Rehearsal Model (CRM) enables learners to focus on and orally practice specific aspects of their pronunciation without the distractions or self-consciousness that can arise from a spontaneous conversation performance. The six steps of CRM are:

1. Find a private space to practice.
2. Perform aloud.
3. Monitor the performance.
4. Compare the performance with models.
5. Change the performance to match the models.
6. Practice the changed performance aloud until fluent.

The role of the instructor is to educate students in the use of an orthographically motivated sound-system and provide the rules of suprasegmental English pronunciation that they will need to successfully participate in the CRM process both during and after formal instruction. The success of CRM lies in its recursive nature and its incorporation of numerous language learning strategies (Sardegna, 2009), and it is through these "processes (not single strategies) that task achievement can be converted into more permanent learning" (Macaro, 2004, as cited by Sardegna, 2009, p. 47). In this way, CRM prepares learners to participate in and benefit from the controlled and authentic

communicative activities focusing on the pronunciation target that will take place in the language classroom.

While more empirical validation needs to take place, the preliminary findings of the investigations into the Covert Rehearsal Model appear promising. Sardegna (2009) found that English phrase stress, construction stress, and word stress significantly improved in a one-semester university-level ESL pronunciation course, and that these advances were maintained over time. It was also found that individual learner differences such as gender, language background, or length of residency in the U.S. could not predict pronunciation improvement, but that the lower proficiency students tended to have higher percentages of improvement, as they were the most willing to integrate the new language learning strategies into their repertoire, and that they continued to use CRM even after the end of the course. Comparable findings have been reported for linking (Sardegna, 2011) and suprasegmental features (Ingels, 2011; Sardegna, 2012; Sardegna & McGregor, in press) in post-secondary courses following the Covert Rehearsal Model. Speech improvements have also been found with peer-mediated focused pronunciation tutoring. After only six hours of instruction from MA TESOL student teachers, learners improved their overall pronunciation by 9.92 percent, with a 13.23 percent improvement in reduction, 10 percent in contractions, 7.53 percent in intonation, and 8.92 percent in primary stress (Smith, 2012). Native and nonnative English-speaking tutors who were simultaneously receiving pronunciation teaching training facilitated these levels of improvement, illustrating the reality that teachers do not have to be pronunciation

specialists, or native speakers, to help their students' improve intelligibility and comprehensibility.

MORLEY'S TEACHER-AS-COACH MODEL

The Teacher-as-Coach model (Morley, 1991) is an ideal way to approach a pronunciation course, where there is a partnership between teacher and student, and the instructor is viewed as a facilitator similar to "a debate coach, a drama coach, a voice coach, a music coach, or even a sports coach" (Morley, 1991, p. 507). Using this coaching outlook, pronunciation instructors have the following responsibilities:

1. Conduct pronunciation diagnostic analyses to determine the needs of learners, and prioritize the features that will most directly affect speech intelligibility and comprehensibility.
2. Guide students in setting realistic short and long-term pronunciation goals
3. Design a syllabus for the entire group of learners, while also designing personalized programs for individual learners
4. Develop an assortment of instructional tasks to provide genuine communicative activities grounded in real-world contexts and situations
5. Organize out-of-class fieldtrips for authentic spontaneous speaking practice and associated follow-up activities
6. Provide a variety of native and nonnative English-speaking models (either recorded or invited guests) for listening and speaking tasks

7. Provide constructive feedback with suggested modifications for target improvement
8. Monitor students' output and assess their progress
9. Encourage student self-monitoring, both in and outside of the classroom
10. Support and encourage all learners in their efforts, regardless of their level of pronunciation improvement

To this comprehensive list, we should add:

11. Follow the CLT Pronunciation Instruction Framework developed by Celce-Murcia et al. (2010)
12. Prepare students to become their own teachers after the end of the pronunciation course through the use of CRM and Dickerson's predictive strategies.

CLASSROOM ENVIRONMENT

In order for pronunciation improvement to take place, teachers must create a comfortable and supportive classroom environment (Morley, 1991). This is possibly even more essential than in any other type of language classroom, due to the performance nature of speech improvement that can generate language anxiety and self-consciousness in students and negatively affect language-learning outcomes (Horwitz, 2010). In order to foster this environment, all classroom feedback interactions, both teacher/student and student/student, should focus on *constructive* feedback with an emphasis on the positive features as well as areas for improvement. The nature of feedback will also depend on the phase of pronunciation instruction. In the description and analysis phase, teachers

need to offer specific feedback on the placement accuracy of the articulatory organs; during listening discrimination instructors must let learners know if they are correctly identifying the target. For the productive phases of pronunciation training, teachers and learners must evaluate the goal of the exercise and adapt their feedback to be as beneficial as possible. If the goal of the task is target accuracy, then explicit feedback on accuracy should be provided throughout; if the goal of the task is to increase target fluency, then feedback should in most cases be delayed until the conclusion of the task so as not to interrupt the flow of communication (Celce-Murcia et al., 2010).

V. CONCLUSION

While pronunciation improvement was deemphasized for a large portion of the later half of the 20th century, it is especially imperative now for it to become commonplace in English language instruction as the world becomes smaller and smaller through globalization, and individuals are in ever increasing contact with people from a multitude of language and cultural backgrounds. Successful communication in the English language has become a necessary stepping-stone for many in their personal, educational, and/or professional lives; therefore comprehensible and intelligible pronunciation is undeniably closely intertwined to this success. This report aims to provide both language educators, and learners, with the rationale and necessary resources to incorporate English pronunciation instruction into today's language classroom.

A focus on the *intelligibility principle* (Levis, 2005), in place of the native speaker model, acknowledges and accepts the diverse motivations that students have for English language learning, and allows instructors to adapt to the immediate needs of their learners while aiding them in setting achievable pronunciation improvement goals. The growing belief, based upon current research findings, that suprasegmental instruction leads to faster and greater pronunciation improvement allows instructors to more effectively help students in the classroom, and gains are witnessed in a smaller amount of time likely leading to increased motivation to continue pronunciation improvement strategies beyond the classroom.

While the research supporting the efficacy of Dickerson's Covert Rehearsal Model (1989; 1994; 2000; Hahn & Dickerson, 1999) for pronunciation improvement is

still in its initial stages, the literature surrounding the effectiveness of strategy training for student empowerment in other areas of language learning (i.e. grammar, reading, writing, and listening) suggests that CRM and its associated predictive strategies for English pronunciation can also be used as an effective tool for improving comprehensibility and intelligibility with students in the long-term. Successful autonomous learners are enabled to take control over their individual language acquisition process and to become in a sense their own "self-teachers." This teacher, and language learner, believes that this is the most powerful lesson that instructors can impart to their students and it should an overarching goal for all varieties of education.

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Vita

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